

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
**BOARD OF PATENT APPEALS AND INTERFERENCES**

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In re Application of:	:	Examiner: Darren W. Gorman
	:	
Frank MILLER	:	
	:	
For: DOSING DEVICE	:	
	:	Art Unit: 3752
Filed: November 14, 2005	:	
	:	
Serial No.: 10/537,032	:	
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Mail Stop Appeal Brief - Patents  
 Commissioner for Patents  
 P.O. Box 1450  
 Alexandria, VA 22313-1450

I hereby certify that this correspondence is being electronically transmitted to the United States Patent and Trademark Office via the Office electronic filing system on **August 18, 2009**  
 Signature: /Elizabeth Tretter/  
 Elizabeth Tretter

**REPLY BRIEF PURSUANT TO 37 C.F.R. § 41.41**

SIR:

This paper is responsive to the Examiner's Answer dated June 19, 2009 in connection with the above-captioned application. For the reasons more fully set forth below and in the "Appeal Brief Pursuant to 37 C.F.R. § 41.37" ("the Appeal Brief"), it is respectfully submitted that the present rejections should be reversed.

The Examiner's Answer is apparently based on a misapprehension or mischaracterization of the statement appearing at col. 5, lines 35 to 38 of U.S. Patent No. 5,947,091 ("Krohn et al."). In this regard, the Examiner's Answer contends at page 6 that "the heating elements '23, 23' 23" and 43" are the only element which are capable of applying heat to the device shown in Figure 1." However, the foregoing statement ignores the very fact that the device described by Krohn et al. is a fuel injection device for an **internal combustion engine** and that the **internal combustion engine** itself may constitute a heat source during operation thereof and that the receptacle sleeve 22 of the fuel injection device described by Krohn et al. may also be subject to ambient temperature conditions. Accordingly, there is no indication that the statement by Krohn et al. at col. 5, lines 35 to 38 that "[d]epending on the shape of the injected fuel stream, some of the liquid fuel may also strike the inside surface of the receptacle sleeve 22, where it is also evaporated if receptacle

sleeve 22 is hot enough” constitutes a disclosure that the receptacle sleeve 22 is heated by the heating elements 23, 23’, 23”.

The Examiner’s Answer alleges at page 7 that “based on what is shown by Krohn et al., it is clear that all of the heating elements “23, 23’, 23” and 43” would apply at least some heat to at least a part of at least one, if not all, of the recited ‘metering conduit’, ‘adapter’, ‘metering device’, and ‘nozzle body’ by convention and/or conduction.” However, there is no support whatsoever for this allegation, and this allegation is apparently based on mere speculation or conjecture. Further, the statement on page 7 of the Examiner’s Answer that “heat by at least conduction, would be applied to at least a part of at least the metering conduit and at least a part of at least the nozzle body through such direct contact,” based on the allegation that “heating elements ‘23’ are in direct contact with the metering conduit ‘22’, and heating element ‘43’ is in direct contact with portion ‘34’ of nozzle body” is also based on mere speculation or conjecture. Krohn et al. does not make any mention whatsoever of whether there is direct contact to provide for heat transfer by conduction or otherwise. Thus, these contentions cannot support an anticipation rejection.

Regarding the statement by Krohn et al. that “[t]he hot discharged fuel, partially liquid and partially vapor, is additionally heated by heating element 43 and by outlet valve 30 which is also heated by the heating element 43,” the Examiner’s Answer contends that the outlet valve 30 includes valve seat 33, holding sleeve 34, and seal ring 35 and that the foregoing statement by Krohn et al. constitutes a disclosure that “heating element 43 clearly delivers heat to at least a part of the nozzle body.” However, the foregoing contention belies the disclosure of Krohn et al. For example, Krohn et al. merely states at col. 4, lines 18 to 21 that “[o]utlet valve 30, which includes a valve seat 30 and a needle-shaped valve body 31 with a closing head 32 on its end facing away from injection valve 10, is arranged in holding sleeve 34.” Since the outlet valve 30 is stated by Krohn et al. to be arranged in holding sleeve 34, it is entirely untenable to consider the sleeve 34 to constitute a portion of the outlet valve 30. Furthermore, Krohn et al. states at col. 4, lines 21 to 23 that “[h]olding sleeve 34 has a seal ring 35 on its outside that is in contact with the inside of receptacle sleeve.” Since holding sleeve 34 is described by Krohn et al. as having the seal ring 35 on its outside, and since Krohn et al. describes the outlet valve 30 as being arranged in holding sleeve 34, it necessarily follows that the seal ring 35 constitutes a portion of the holding sleeve 34 and not a portion of the outlet valve 30. Thus, the contentions with respect to heating of outlet valve 30 by heating element 43 are entirely unfounded.

Moreover, Krohn et al. states at col. 5, lines 42 to 44 that “[t]he hot discharged fuel, *partially liquid and partially vapor*, is additionally heated by heating element 43 and by outlet valve 30 which is also heated by the heating element 43” (emphasis added). Thus, it is plainly apparent that the foregoing does not constitute a disclosure that “the fuel is heated into an *entirely vapor phase*.”

For at least the reasons indicated above and in the Appeal Brief, Appellant respectfully submits that all of the rejections set forth in the Final Office Action should be reversed.

Respectfully submitted,

Dated: August 18, 2009

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